



March 1, 2016

VIA EMAIL

Ms. Terri Blunk
Chemical Risk Information Branch
EPA Region 7
11201 Renner Boulevard
Lenexa, KS 66219
blunk.terri@epa.gov

Re: General Duty Clause Semi-Annual Report
Coffeyville Resources Refining & Marketing, LLC (CRRM)
Civil Action Number 11-CV-1291-JTM-JPO
United States District Court, District of Kansas, Consent Decree entered July 2, 2013

Dear Ms. Blunk:

Pursuant to correspondence between the United States and CRRM, dated May 2, 2013 through May 9, 2013, CRRM is submitting the attached semi-annual report, updating EPA on the corrective actions CRRM has taken to address the findings of its General Duty Clause ("GDC") audit. The attached progress report covers the period dated August 1, 2015 to January 31, 2016.

As discussed in its dated June 27, 2014 GDC audit submission, CRRM does not believe that any of the violations or findings discovered during CRRM's Program Audit, Vessel Audit, or HF Alky Audit constitute violations of the GDC. However, as a precaution, CRRM submitted each of those audit findings as GDC audit findings. Accordingly, CRRM's progress report under the GDC agreement mirrors its progress report under the above referenced Consent Decree.

If there are questions, or additional information is required, please contact Dennis Irwin at 620/252-4612 or me at 620/252-4295.

Sincerely,

A handwritten signature in blue ink, appearing to read "Darin Rains". The signature is fluid and cursive, with a large loop at the end.

Darin Rains
Vice President and Refinery General Manager

Enclosure

cc: John Walter, Esquire (via electronic mail)
Ms. Janice DeVelasco (via electronic mail)
Mr. Dennis Irwin (via electronic mail)
LeAnn Johnson Koch, Esquire (via electronic mail)



CERTIFIED MAIL RETURN RECEIPT REQUESTED

March 1, 2016

Mr. W. Benjamin Fisherow
Chief, Environmental Enforcement Section
U.S. Department of Justice
P.O. Box 7611, Ben Franklin Station
Washington, D.C. 20044-7611
Reference Case No 90-5-2-1-07459/1

Re: **Semi-Annual Report**
Coffeyville Resources Refining & Marketing, LLC (CRRM)
Civil Action Number 11-CV-1291-JTM-JPO
United States District Court, District of Kansas, Consent Decree entered July 2, 2013

Dear Mr. Fisherow:

Pursuant to Section VIII, Paragraph 26 of the referenced Consent Decree and the Semi-Annual Reporting Clarification letter from Ms. Sarah LaBoda dated August 28, 2013, CRRM is submitting the semi-annual report for the period from August 1, 2015 to January 31, 2016.

Copies are being provided to the Chief, Chemical Risk Information Branch and Office of Regional Counsel at Region 7 of the Environmental Protection Agency as described in Section XV.

If there are questions, or additional information is required, please contact Dennis Irwin at 620/252-4612 or me at 620/252-4295.

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on any personal knowledge I may have and my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

A handwritten signature in blue ink, appearing to read "Darin Rains".

Darin Rains
Vice President and Refinery General Manager

Enclosure

Copy:

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Civil Action No. 11-CV-1291-JTM-JPO
Section VIII
Paragraph 26, Reporting Requirements

Semi-Annual Report
March 1, 2016

Consent Decree Implementation Progress
Period through January 31, 2016
Confidential Business Information

Paragraph	Requirement	Requirement Due	Status
20	Implementation of Actions Necessary to Correct Non-Compliance	Implement no later than October 1, 2016	Ongoing See Attachment 1.
22.b.	Written Notice for Alky Scrap Metal	Provide written notice beginning no later than 60 days after the Effective Date	Ongoing Written notice continues to be provided to entities that receive scrap metal from the Alkylation unit.
23.c.	Implement PHA Recommendations	Implement no later than October 1, 2016	Ongoing See Attachment 2.

Program Audit		
Item	Status	Completion Date
No Items Due this reporting period.		

Vessel Audit

Item	Status	Completion Date
18.(a)(1): Section 2 of Vessel Audit Report (updated inspection schedule)	Vessel inspections have been completed for Pressure Vessels following the requirements of API 510 based on corrosion rate and identified in schedule submitted in the Vessel Audit report. Vessels that were determined to not be pressure vessels and vessels that corrosion rate allowed an inspection after 10/2015 have revised inspection dates.	Ongoing per inspection schedule.

HF Audit

Requirement	Action for "Shall" Requirements	Action for "Should" Requirements	Completion Date and Status
2.3.1. Operating Manuals and Unit Documentation			
		Consider developing a procedure for unit dry out prior to introducing HF acid into the process.	Certified completion of consideration in previous report. Dry out procedure completed 10/13/15.
2.3.6. Safety Systems			
		Consider installation of Tis at the outlet of the alumina treaters, at the inlet of the KOH scrubbers, and at the outlet of the KOH scrubber. The outlet temperatures of the alumina treaters and the KOH treaters are critical alarms that detect HF excursions in the propane. Consider an automated safety system for propane recycle based on high temperatures of alumina treaters. Consider installation of field flow meters on both circulating caustic returns (distributor and overhead) with FAL and FALL. Install TI's in the neutralizing section of the tower with TAH and TAHH. Install pressure equalization line from sump to OVHD of scrubber.	12/31/15 Considered and evaluation ongoing. Completion by 10/1/16.
		Develop the testing frequency and maintenance program for safety systems to add PM to Maximo.	12/31/2015 Considered and evaluation ongoing. Completion by 10/1/16.

Attachment 1**CONFIDENTIAL BUSINESS INFORMATION**

Requirement	Action for “Shall” Requirements	Action for “Should” Requirements	Completion Date and Status
		Consider SIL analysis for the EIVs within the HF unit.	12/31/15 Considered and evaluation ongoing. Completion by 10/1/16.
2.5.3 Training of Maintenance Personnel			
	Employees and contractors involved in maintaining the mechanical integrity of equipment in the HF Alkylation unit shall be trained in the mechanical and materials limitation, procedures, and safe work practices applicable to their jobs, including the hazards of HF.		Completed 9/24/15.
		Develop a maintenance-specific HF training program to address maintenance specific HF issues. These issues should include, but are not limited to: HF specific pipe dope, the use of HF specific gaskets on all flanges in the unit, specific lube and seal requirements for pump gaskets, decontamination and tagging of equipment, etc.	Considered and accepted. Completed 9/24/15.
2.6.7 Inspection and Testing			
		Evaluate facilities to provide for user to perform glove test.	Considered and accepted. Completed 12/31/15.

Attachment 1**CONFIDENTIAL BUSINESS INFORMATION**

Requirement	Action for “Shall” Requirements	Action for “Should” Requirements	Completion Date and Status
3.2.2 Carbon Steel			
		Ensure Inspection, Technical Services, and Operations personnel are aware of the information in Appendix D of API RP 751 concerning corrosion in HF service.	Certified completion of consideration in previous report. Informing of personnel completed 12/10/15.
		Include information on protective iron fluoride film in the training materials or formalized documents for maintenance or operations.	Considered and accepted. Completed 2/8/16.
		Train on the effects of HF on welding slag and other silica-based inclusions for maintenance and construction personnel, including contactors performing work in the Alky Unit.	Considered and accepted. Completed 12/14/15.
3.2.3 Alloy 400			
		Review current specifications for PWHT of Monel. Modify specifications as appropriate to include PWHT.	Considered and accepted. Completed 12/31/15.

Attachment 1**CONFIDENTIAL BUSINESS INFORMATION**

Requirement	Action for “Shall” Requirements	Action for “Should” Requirements	Completion Date and Status
3.3 Construction and Equipment Guidelines			
3.3.1 Pressure Vessels			
		<p>Evaluate and develop carbon steel welding procedures for control of weld hardness and heat affected zones to include:</p> <ul style="list-style-type: none">• addressing control of base metal chemistry (limiting carbon equivalent (CE) and trace element (V and Ni).• selection of weld process and filler metal.• modify PWHT temperature range to $1175 \pm 25^{\circ}\text{F}$.• method to minimize slag inclusions.• include WMT or WFMT for inspection of internal vessel surfaces.	<p>Certified completion of consideration in previous report.</p> <p>Procedure content verification completed 8/13/15.</p>
3.3.2 Piping			
		<p>Review HF-2 specification and update to address:</p> <ul style="list-style-type: none">• use of a 1” minimum line size for process piping.• minimum pipe wall thickness	<p>Certified completion of consideration in previous report.</p> <p>Specification verification completed 11/24/15.</p>

Attachment 1**CONFIDENTIAL BUSINESS INFORMATION**

Requirement	Action for “Shall” Requirements	Action for “Should” Requirements	Completion Date and Status
		<p>Review gasket specifications and grease for piping and update.</p> <ul style="list-style-type: none">• Typical RTJ specification should be soft iron.• Black Polymel 422 is reported to be used on all RTJ gaskets. Include the grease in the piping specification. <p>Review use of Monel overlay for RF flanges. Document conclusion on use of Monel overlay.</p>	<p>Certified completion of consideration in previous report.</p> <p>Specification and procedure verification completed 8/13/15.</p>
		<p>Document the specification for use of individual valve tag numbers in the piping specifications.</p>	<p>Certified completion of consideration in previous report.</p> <p>Documentation evaluated and determined infeasible completed 12/31/15.</p>
		<p>Document the specification for valve packing in the piping specifications.</p>	<p>Certified completion of consideration in previous report.</p> <p>Specification evaluation completed 10/20/15.</p>
		<p>Continue work to eliminate dead-legs connections.</p>	<p>Considered and accepted.</p> <p>Dead legs identified to date have been removed. Program in place to avoid creation of dead legs and continue removal when identified.</p> <p>Completed 12/31/15 and ongoing..</p>

Attachment 1**CONFIDENTIAL BUSINESS INFORMATION**

Requirement	Action for “Shall” Requirements	Action for “Should” Requirements	Completion Date and Status
3.3.3 Pumps			
		Consider use of remotely operated isolation valves on the suction and discharge lines of the fresh acid/acid regeneration feed, depropanizer feed pumps, and emulsion reaction recirculation pump.	12/31/15 Considered and developed an alternative engineered solution to mitigate loss of containment.
3.3.6 Instrumentation			
		Consider adding purging requirements to the startup procedures for dry out of instrument lines to remove traces of water.	Certified completion of consideration in previous report. Procedures completed 10/16/15.
		Consider adding requirements to the startup procedures for purging Alloy 400 and 500 components in instruments or associated piping to remove oxygen.	Certified completion of consideration in previous report. Completed 7/17/15.
		Consider adding requirements to procedures for length of instrument impulse lines to be as short as possible and free draining back to process piping or equipment.	Certified completion of consideration in previous report. Completed 7/17/15.

Attachment 1**CONFIDENTIAL BUSINESS INFORMATION**

Requirement	Action for “Shall” Requirements	Action for “Should” Requirements	Completion Date and Status
3.4 Inspection of Commissioned HF Unit Equipment			
3.4.4 Pumps			
		Consider pump performance history to determine internal inspection frequency.	Certified completion of consideration in previous report. Procedures completed 8/13/15.
		Consider pump internal inspection frequency of at least every five years.	Certified completion of consideration in previous report. Inspection frequency completed 8/13/15.
3.4.8 Storehouse Materials			
		Consider segregated storage area for alkylation unit materials.	Certified completion of consideration in previous report. Dedicated storage area, materials of construction identification, and positive materials identification completed 8/13/15.

Attachment 1**CONFIDENTIAL BUSINESS INFORMATION**

Requirement	Action for “Shall” Requirements	Action for “Should” Requirements	Completion Date and Status
		Include both warehouses in the Quality Assurance Program, if implemented.	Certified completion of consideration in previous report. Quality Assurance Program management completed 7/20/15.
3.5.1 Equipment Maintenance - General			
	Continue to develop and document maintenance program for alky unit (preventive and predictive).		Alkylation Inspection plan included in HF Alkylation Inspections Guidelines Procedure. Completed 9/24/15.
		Consider including flanges in MI program.	Considered and accepted. All acid service flanges issued unique identification, marked on Inspection Piping isometrics. Included in HF Alkylation Inspection Guidelines Procedure. Completed 8/13/15.
		Continue maintenance training development and implementation.	Considered and accepted. Criticality analysis completed and used to prioritize repairs. Completed 8/13/15.

Attachment 1**CONFIDENTIAL BUSINESS INFORMATION**

Requirement	Action for “Shall” Requirements	Action for “Should” Requirements	Completion Date and Status
		Consider identification of critical equipment/levels and ensure repair priority is consistent with level of criticality.	Considered and accepted. Maintenance continues to conduct annual HF training for the area craftsmen. Completed 12/31/14.
3.5.9 Isolation and Neutralization			
		Consider developing written procedures for preparing equipment for maintenance.	Certified completion of consideration in previous report. Procedures completed 9/30/15.
3.5.12 Turnaround Preparation			
		Consider including marking vessel contents in plan.	Certified completion of consideration in previous report. Marking process completed 10/28/15.
		Consider marking flanges in HF service inaccessible during turnaround.	Certified completion of consideration in previous report. Marking process completed 8/13/15.

Attachment 1**CONFIDENTIAL BUSINESS INFORMATION**

Requirement	Action for “Shall” Requirements	Action for “Should” Requirements	Completion Date and Status
5.1 Relief and Neutralization Systems			
5.1.3 Pressure Relief and Flare Systems			
		<p>Consider completing documentation for scrubber capacity.</p> <p>The vapor relief case for the tray design in the upper section should be evaluated to ensure it is sufficient. The quantity of acid from the Ascent flare study at maximum relief should be compared to the capacity for neutralization. If the neutralization capacity is less than the acid in the flare gas determined by the flare study, the strength, volume, and flow rate of the caustic should be calculated and revised, if needed.</p>	<p>Certified completion of consideration in previous report.</p> <p>Documentation completed and compiled 7/29/15.</p>
		<p>Consider documenting temporary routing of HF storage relief when the unit and scrubber are out of service.</p>	<p>Certified completion of consideration in previous report.</p> <p>Plan for managing storage relief completed 6/12/15.</p>

PHA - HF Alkylation Unit

Item	PHA Recommendation	Target Date	Status	Completion Date
6	Evaluate FH0025 heater fuel supply safety controls. Consider adding trips to shut off fuel gas for high and low fuel gas pressure for each fuel supply line (pilot and main).	12/31/15	Complete. Safety controls installed.	12/31/2015
7	Evaluate FH0024 heater fuel supply safety controls. Consider adding trips to shut off fuel gas for high and low fuel gas pressure for each fuel supply line (pilot and main).	12/31/15	Complete. Safety controls installed.	12/31/2015
8	Evaluate FH0023 heater fuel supply safety controls. Consider adding trips to shut off fuel gas for high and low fuel gas pressure for each fuel supply line (pilot and main).	12/31/15	Complete. Safety controls installed.	12/31/2015
11	Consider adding an online sampling system for HF Acid at the contactor settler and reactor settler.	12/31/14	Certified completion of consideration in previous report. On line sampling system is in engineering and design phase of implementation.	Completion by 10/1/2016
13	Consider adding temperature and pressure indication and alarms on the inlet and outlet of each KOH Treater, or a high temperature indication and alarm at a common location on the discharge of the KOH Treater (e.g., inlet to Coalescer).	Evaluation by 6/30/13	Certified completion of consideration in previous report. Temperature indicators exist on inlet and outlet piping. Alarms are planned for installation on these temperature indicators.	Completion by 10/1/16
14	Review cause of Coker hydrocarbons occasionally being sent from the Coker to the spent NaOH tanks.	Evaluation by 6/30/13	Certified completion of review in previous report. Complete. Equipment installed to address the cause.	12/28/15
17	Consider additional water mitigation on the eastside of the Alkylation unit.	Evaluation by 6/30/13	Certified completion of consideration in previous report. Water mitigation system to mitigate risk is in engineering and design phase.	Completion by 10/1/16

Item	PHA Recommendation	Target Date	Status	Completion Date
19	Consider automatically or remotely (manual start from the DCS board) starting the flush pumps.	12/31/14	Certified completion of consideration in previous report. Complete. Pumps can be started remotely.	1/26/15